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PTO/SB/05 (08-00) (modified)

| Approved t               | or use through 9/30/2001, OMB 0651-0032 |
|--------------------------|---|
| Patent and Trademark Off | ice: U.S. DEPARTMENT OF COMMERCE        |
| ttomey Docket Number     | 22920-06460                             |

| <b>NEW UTILITY</b> |   |
|--------------------|---|
| PATENT APPLICATIO  | N |
| TRANSMITTAL        |   |

(only for new nonprovisional applications under

| Tateritaria Trademark On | 100: 0:0: 52: 71:11112:11 0: 00:                  |          |
|--------------------------|---|----------|
| Attorney Docket Number   | 22920-06460                                       | o _ :    |
| First Named Inventor     | Xiaodong Huang                                    | 08<br>08 |
| Title                    | QUANTUM DOT VERTICAL CA<br>SURFACE EMITTING LASER |          |
| Express Mail Label No.   | EL 951616269US                                    | 10/      |
| ACCOMPAN                 | YING APPLICATION PART                             | \$       |
| 7 Assignment             | Paners (cover sheet & document)                   | -11      |

| (4)   | 37 CFR 1.53(b))   |                                |                                | EL 95161626   | 9US                                    | 90  |  |
|---|---|--------------------------------|--------------------------------|---|--|-----|--|
| APPLICATION ELEMENTS  |   |                                | ACCOMPANYING APPLICATION PARTS |   |  |     |  |
| - · · · <b>=</b>  | mittal Form (in duplicate)<br>claims small entity status.<br>FR 1.27  | 7.<br>8.                       | = `                            | y of Priority Do  | sheet & document<br>cument(s) (if fore |     |  |
| Descriptive Cross Refe Statement Background Brief Sumn Brief Descr Detailed De Claim or Cl  | ment set forth below) Title of the Invention Prence(s) to Related Case(s) Regarding Fed sponsored R & D d of the Invention Pray of the Invention Property of the Drawing(s) Property of the Drawing(s) Property of the Drawing(s) | 9.<br>10.<br>11.<br>12.<br>13. | 37 CFR 3.73                    | (b) Statement mendment disclosure State disples of IDS Ci on Request und (B)(i). Applicant SB/35 or its equ | ler 35 U.S.C. 122<br>t must attach for | 49  |  |
| 4. Drawing(s) (35 U.S.C. Total Sheets 28  5. Oath or Declaration a. New Declaration  Executed (original or copy)  b. Copy from a prior application (37 CFR 1.63(d))  (for continuation/divisional with Box 18 completed) i. DELETION OF INVENTOR(S)  Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).  |   |                                |                                |   |  |     |  |
| 6. X Application  | Data Sheet. See 37 CFR 1.76   |                                | Commi                          | tent Applications ssioner for Pangton, D.C. 20  | itents                                 |     |  |
| 18. If a CONTINUING APPLICATION, check appropriate box and supply the requisite information below and in a preliminary amendment or in an Application Data Sheet under 37 CFR 1.76:  Continuation Divisional Continuation-in-part (CIP) of prior application No:/  Prior application information: Examiner: Group/Art Unit:  For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuing or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.  19. CORRESPONDENCE ADDRESS |   |                                |                                |   |  |     |  |
| Customer Number and Bar Code Label 00758  |   |                                |                                |   |  |     |  |
| Name (Print/Type)   | Edward A. Van Gieson  |                                | Registration No                | . (Attorney/Agent   | 9 44,38                                | 16  |  |
| Signature   | Column 1/ Bus   |                                |                                | Date  | March                                  | 200 |  |

PTO/SB/17 (10-01)(modified)
OMB 0651-0032
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

| 0002/PTO(modified) U.S. Department of Commerce |                                 |  | C                                       | Complete if Known            |  |   |             |  |
|--|---------------------------------|--|---|------------------------------|--|---|-------------|--|
| Rev. 10/2001                                   | •                               | Patent and Trademark                               |   | Application Number           |  | Unassigned                              |             |  |
| They. 10/2007                                  |                                 |  | _ ' :                                   |                              | March 1, 2002  |   |             |  |
| FEE TRANSMITTAL                                |                                 |  | First Named Inventor                    |                              | Xiaodong Huang                                       | -                                       |             |  |
| I EE ITANOMITTAE                               |                                 |  | Group Art Unit                          |                              | Unassigned   |   |             |  |
| TOTAL AMOUNT OF PAYMENT                        |                                 | -  | Examiner Name                           |                              | Unassigned   |   |             |  |
|  |                                 |  |   |                              | 22920-06460  |   |             |  |
| <u> </u>                                       |                                 | 1 (4) 020:00                                       |   |                              |  |   |             |  |
| N  | METHOD OF                       | PAYMENT  |   | FEE CA                       | LCULAI   | ION (continued)                         |             |  |
| 1. The Comm                                    | nissioner is h                  | nereby authorized to:                              | 3. ADDITION                             | AL FEES                      |  |   |             |  |
|  |                                 |  | Large Entity                            | Small Entity                 |  |   |             |  |
| ☐ Chai   | rge the indicated               | d fees to the below                                | Fee Code/Fee                            | Fee Code/Fee Fee Description |  | cription                                | Fee Due     |  |
| men  | tioned deposit a                | iccount.   | 105/\$130                               | 205/\$65                     | Surcharge  | Surcharge - late filing fee or oath     |             |  |
| ☐ Chai   | rge any addition                | al fee required under 37                           |   |                              |  |   |             |  |
| CFR  | t 1.16 - 1.21 or c              | redit any over payments<br>ned deposit account. †  | 127/\$50                                | 227/ <b>\$2</b> 5            | Surcharge-late provisional filing fee or cover sheet |   |             |  |
| to un  | e below memior                  | ieo deposit account.                               | 147/\$2,520                             | 147/ <b>\$2,520</b>          | For filing   | For filing a request for reexamination  |             |  |
| Appl   | licant claims sm                | all entity status                                  |   |                              |  |   |             |  |
| See  | 37 CFR 1.27                     |  | 115/\$110                               | 215/ <b>\$55</b>             | Extension  | n for response within first monthT      |             |  |
|  |                                 |  | 116/ <b>\$400</b>                       | 216/ <b>\$200</b>            | Extension  | n for response within second month      |             |  |
|  |                                 | 2555   | 117/\$920                               | 217/\$460                    | Extension  | n for response within third month       |             |  |
|  | int Number: 19<br>int Name: FEI | WICK & WEST LLP                                    | 11//4920                                | 2117#400                     |  |   |             |  |
| 1.   |                                 |  | 118/ <b>\$1,440</b>                     | 218/ <b>\$720</b>            | Extension  | n for response within fourth monthT     |             |  |
| A Duplicate Co                                 | opy of this auth                | orization is attached                              | 128/ <b>\$1,960</b>                     | 228/\$980                    | Extension  | n for response within fifth month†      |             |  |
| ⊒2. ⊠ Pay                                      | yment Enclo                     | sed:   |   |                              |  |   |             |  |
| 1.1  | -                               | Credit Card  | 119/ <b>\$320</b>                       | 219/ <b>\$160</b>            | Notice of  | Appeal                                  |             |  |
| <del>-</del>                                   |                                 | (fees effective 10/01/2001)                        | 141/\$1,280                             | 241/ <b>\$640</b>            | Petition to  | o revive unintentionally abandoned      |             |  |
| 1. FILING FE                                   |                                 | (lees ellective 10/01/2001)                        | , | ,                            | application  | •                                       |             |  |
| Large Entity                                   | Small Entity                    | Fee Fee  | 440/04 000                              | 040/8840                     | I Hiliby Ioo   | uo Foo (Or Boissuo)                     |             |  |
| Fee Code/Fee                                   | Fee Code/Fee                    | Description Due                                    | 142/ <b>\$1,280</b>                     | 242/ <b>\$640</b>            | Othlity iss  | ue Fee (Or Reissue)                     |             |  |
| R  |                                 |  | 4.40/0.400                              | 040/8028                     | Design Is  | seus Ess                                | <del></del> |  |
| 101/\$740                                      | 201/ <b>\$370</b>               | Utility Filing 370                                 | 143/ <b>\$460</b>                       | 243/ <b>\$230</b>            | Design Is  | ssue ree                                |             |  |
| 106/\$330                                      | 206/\$165                       | Design Filing                                      | 122/\$130                               | 122/ <b>\$130</b>            | Petitions  | to the Commissioner                     |             |  |
| u.j  |                                 |  | 126/\$180                               | 126/\$180                    | Submissi   | ion of Information Disclosure Statement |             |  |
| 108/\$740                                      | 208/\$370                       | Reissue  |   | 070/2070                     | Decuest  | for Continued Examination (PCE)         |             |  |
| 114/\$160                                      | 214/\$80                        | Provisional  | 179/\$740                               | 279/ <b>\$370</b>            | Request  | for Continued Examination (RCE)         |             |  |
| F. 114/\$100                                   | 214/400                         | Filing   | 581/ <b>\$40</b>                        | 581/ <b>\$40</b>             |  | g each patent assignment per property   |             |  |
|  | SUBTOTA                         | AL (1) (\$) 370                                    |   | (times number of properties) |  | imper of properties)                    |             |  |
| tu .   | 3051017                         | (1) (4) 310  | 146/ <b>\$740</b>                       | 246/\$370                    |  | ubmission after final rejection         |             |  |
| 2. CLAIMS                                      |                                 |  |   |                              | (37 CFR  | 1.129(a))                               |             |  |
| Large Entity                                   | Small Entity                    |  | 149/\$740                               | 249/\$370                    | For each   | additional invention to be examined     |             |  |
| Fee Code/Fee                                   | Fee Code/Fee                    | Fee Description                                    |   | • • •                        |  | 1.129(b))                               |             |  |
| 103/\$18                                       | 203/\$9                         | Claims in excess of 20                             |   |                              |  |   |             |  |
| ·  | ·                               |  |   | Other fee (specify):         |  |   |             |  |
| 102/\$84                                       | 202/\$42                        | Independent claims<br>in excess of 3               |   | Other fee (specify):         |  |   |             |  |
|  |                                 |  |   | ., ,,                        |  | SUBTOTAL (3) (\$)                       |             |  |
| 104/\$280                                      | 204/ <b>\$140</b>               | Multiple dependent claim                           |   |                              |  | SUBTOTAL (3) (\$) (                     |             |  |
|  | 0001848                         | Dalani a indonesidant                              | (Col. 1)                                | (Col. 2)                     | <del></del>  | (Col. 3)                                |             |  |
| 109/\$84                                       | 209/\$42                        | Reissue independent<br>claims over original patent | No. of                                  | Highes                       | t No.  |   | Fee         |  |
| 110/649  | 240/88                          | Reissue claims in excess                           | For Existing                            | Převid<br>Paid Fo            |  | Extra** Fee                             | Due         |  |
| 110/\$18                                       | 210/\$9                         | of 20 and over original                            | TOTAL 39                                | minus* 20 or <b>0</b>        | _  |   | 171         |  |
|  |                                 | patent   | INDEP 5                                 | minus* 3 or 0                |  |   | 84          |  |
|  |                                 |  | [ ] First pre                           | esentation of multiple depen | dent claim   | =                                       |             |  |
|  |                                 |  | * Subtract the                          | greater number of Col. 2     |  | SUBTOTAL (2)                            | ) 255       |  |
|  |                                 |  | ** If the differen                      | ice between Col. 1 and Col.  | 2 is less th   | nan zero, then enter "0" in Col. 3      | <u> </u>    |  |
| SUBMITTED BY Complete (if applicable)          |                                 |  |   |                              |  |   |             |  |
| CODIMITIES DI                                  |                                 |  |   | Reg. Number 44,386           |  |   |             |  |
|  | <del></del>                     | 1 0  |   |                              |  | Data 44 / /                             |             |  |
| Signature                                      | Colon                           | 1 1/ 92  |   |                              |  | Date March 1, 7                         | 002         |  |